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PICTURE OF THE MONTH

Hurricane Camille

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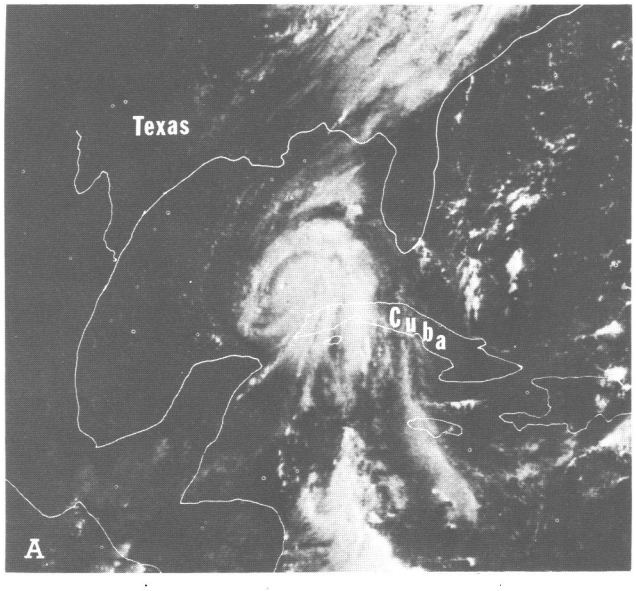
Camille, the third Atlantic hurricane of the 1969 season, may well prove to be one of the most intense storms on record. This storm first reached hurricane strength west of Grand Cayman Island on August 15. After crossing the western tip of Cuba, the storm intensified markedly on the 16th. On the evening of the 17th, it hit the Mississippi coast with 190-mi hr^{-1} winds and 30-ft tides. For several days during the life of the storm, NASA's ATS III geostationary satellite, positioned at 47° W., photographed the storm at intervals as frequent as 10 min. The pictures shown here were taken on the 16th during the rapidly deepening stage of the storm.

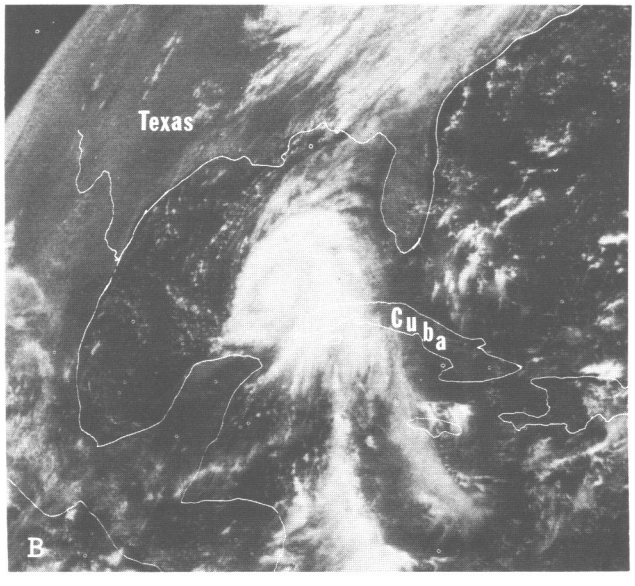
In figure 1A, this small but intense hurricane is located about 370 mi south of Panama City, Fla. Here, the western wall of the storm eye is brightly highlighted by the early morning sun. By 1107 EDT, the sun illuminates the entire viewing area (fig. 1B); the Gulf of Mexico coastline and the cloud-covered Florida Peninsula are clearly visible. A bright area can still be seen in the eye, and a slight increase in clouds can be seen along the eastern and southern portions. During the next 2 hr, growth appears to have proceeded in all quadrants (fig. 1C). It is interesting to note that this storm is composed of two distinct cloud areas; the first is the small, very circular inner portion which contains the eye, and the second, separated by a thin darker area, is a rather wide mantle of clouds about the central core.

A reconnaissance flight at 1600 EDT estimated the winds at 115 mi hr^{-1} near the center. The picture (fig. 1D) taken at 1530 EDT shows that the cirrus is increasing markedly about the storm. Hurricane Camille continued to deepen during the next 2 hr. By 1800 EDT, winds were estimated at 150 mi hr^{-1}. The satellite photograph (fig. 1E) shows a further increase in the size of the storm. Of particular interest is the long cirrus cloud with internal transverse banding which appears along the eastern edge of the storm. In the last view (fig. 1F), darkness is approaching the storm. During this 11-hr period, the diameter of the clouds nearly doubled in extent, and the whole system and eye remained very well defined.

During the night, Camille continued to move northward at about 12 mi hr^{-1}. By 0800 EDT on August 17, the hurricane appeared in the radar at New Orleans, and by late afternoon her 190-mi hr^{-1} winds and high tides had reached the Mississippi and Alabama coasts.

Frequent readouts of pictures such as these, taken over the Atlantic area, are presently part of an experimental program to track newly developing and mature hurricanes.





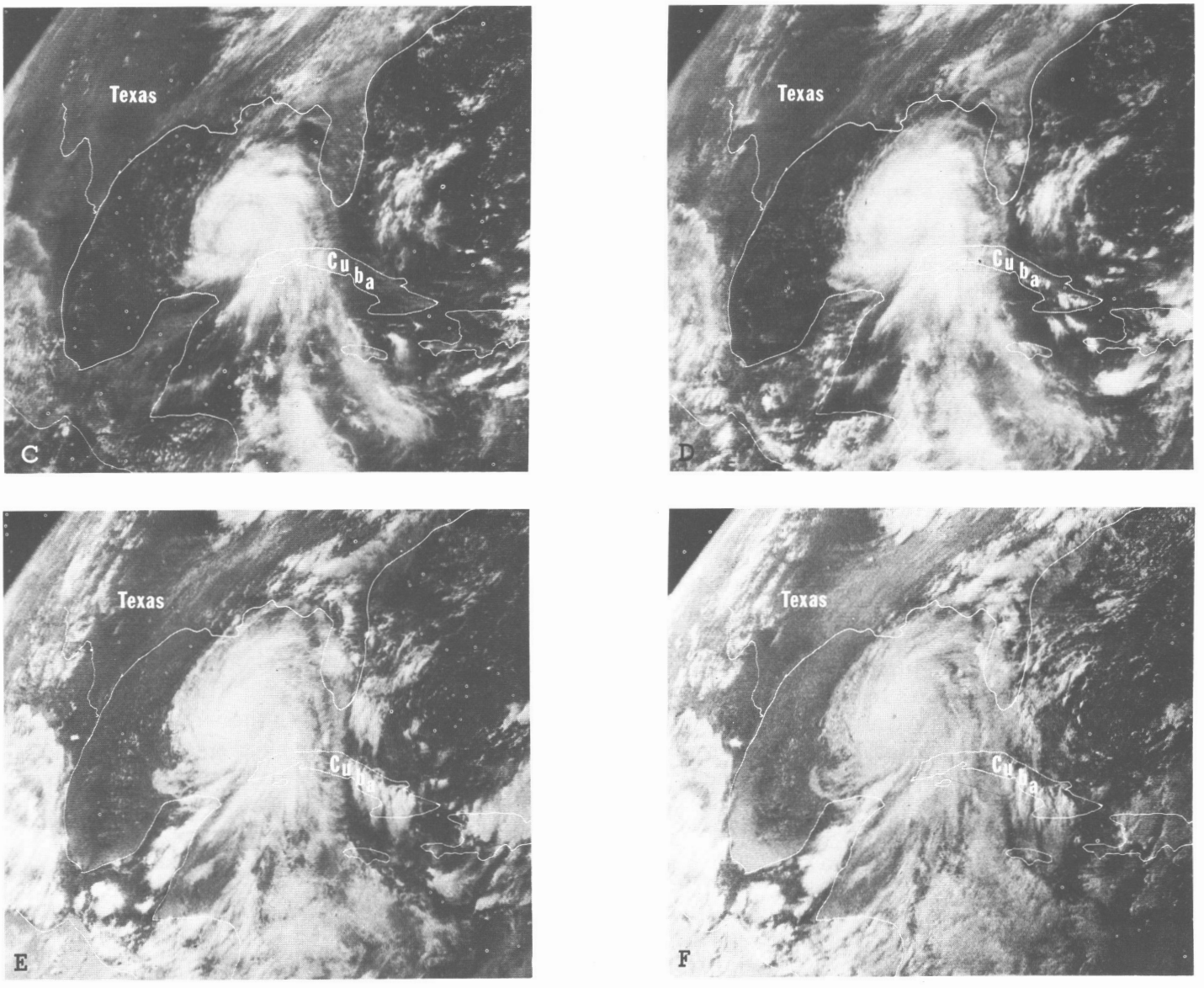


FIGURE 1.—Hurricane Camille, the third Atlantic hurricane of the 1969 season; (A) 0911 EDT; (B) 1107 EDT; (C) 1303 EDT; (D) 1530 EDT; (E) 1740 EDT; (F) 1940 EDT.